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ABSTRACT

The kit is a multilevel assessment and reporting instrument for continuously evaluating the progress of multiply handicapped and retarded children receiving instruction in basic living skills. The TRAC System is designed to pretest a child to prescribe individual instruction and to then monitor the child's progress in his or her program. The system is structured to monitor student progress at three specific levels: an area of adaptive behavior, skills within that area, and subskills within that skill. The adaptive behaviors covered include eating, dressing, communication, social behavior, personal hygiene, motor performance, basic skills, concept formation, and toileting. The kit includes recording sheets to tabulate student performance in each of the three specific levels. A reference guide is also provided, covering how to use the TRAC System, its limitations and possible misuses, its use with other instruments and/or specific curricula, and its technical development. (DLS)

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TRAC MONITORING SYSTEM

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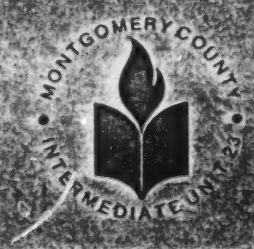


WHAT IS THE TRAC MONITORING SYSTEM?

The TRAC Monitoring System is a multi-level assessment and reporting instrument for continuously evaluating the progress of multiply handicapped and retarded children who are receiving instruction in basic living skills.

The historic Right-to-Education Consent Agreement passed in May, 1972 provided the impetus for the development of this System. The Agreement forced public schools in Pennsylvania to develop appropriate educational programs for all school-age retarded individuals. Meeting the educational needs of very low-functioning children, such as the severely and profoundly retarded, or the multiply handicapped, was a demanding task. Managing the children's instructional programs was most difficult because their slow learning and lack of basic skills demanded a multitude of individualized instruction programs. This, in turn, necessitated large expenditures which had to be justified to educators, parents, and taxpayers. The need for a practical system of monitoring and reporting each child's progress became crucial. The TRAC Monitoring System was developed to meet these needs.

The TRAC System uses a particular form of measurement called "monitoring". Other educational measurement systems assess a child's status at one given point in time, and then compare the assessment score to a given norm. Rather than just giving a before-after picture of a child's standing in adaptive behaviors, the TRAC System pre-tests a child to prescribe individual instruction, and then monitors the child's progress in his or her individual instructional program.

The System is structured to monitor student progress at three specific levels: an area of adaptive behavior, skills within each area, and subskills within each skill. The adaptive behaviors used in the system include Eating, Dressing, Communication, Social Behavior, Personal Hygiene, Motor Performance, Basic Skills, Concept Formation, and Toileting. The System includes recording sheets to tabulate student performance in each of the three specific levels.

As you use the recording sheets, you will become aware of the flexibility of the TRAC System. The information you will be compiling on these sheets ranges from the specific results of a child's daily trials in various subskills to summary descriptions of the child's accomplishments in an area of adaptive behavior.

When used consistently, the TRAC System provides a concise charting of a child's progress on subskills on a daily basis, on skills on a monthly basis, and on areas of adaptive behavior on a quarterly basis. The teacher will find it an effective tool for providing information of various levels of specificity to administrators, therapists, and parents.

WHO CAN USE THE SYSTEM AND WHY?

The TRAC System can serve a variety of users. From teachers who work with children on a day-to-day basis to Directors of Special Education, individuals throughout the educational hierarchy will find this system to be a uniform method of reporting pupil progress.

The TRAC System is helpful to teachers in three ways. First, it gives them recording sheets for noting the results of instruction on a daily, monthly, and quarterly basis. These recording sheets provide information ranging from the specifics of daily instruction to a generalized picture of progress over a given period of time. Second, the System aides the teacher in effectively planning a child's instructional program. Third, the System presents a clear picture of a student's progress and thus aides communication among various persons who are involved in the care and education of the child.

Data from the TRAC System can be extremely useful to the researcher. For years we have been searching for a common, generalizable language for reporting and comparing the results of the various curricula which serve low-functioning children. Now we have an instrument which is not only oriented in terms of day-to-day reporting of results, but is also suited to providing data for clinical and developmental research, and experimental, psychological, and curricular comparisons.

In addition to the teacher and the researcher, the TRAC Monitoring System will be a practical tool for the master teacher and the supervisor. Master teachers and supervisors are continuously called upon to evaluate their effectiveness in directing curriculum development and in managing their instructional staffs. This instrument, when used uniformly for all students under a supervisor's direction, can be an effective means of generating data on which to base major curricular decisions.

Directors of Special Education, Directors of Curriculum, Program Evaluators, and other administrative personnel constitute still another group of potential benefactors of this System. The data made available through the use of the TRAC System will enable these administrators to examine general trends in program performance, to evaluate the overall progress of children in particular programs, and to prepare presentations for Boards of School Directors and other professional audiences.

Accurate and consistent recording procedures are vital for the success of the TRAC System. The following instructions outline the procedures for filling out the three types of worksheets. Information noted on Subskill Worksheets will yield scores for Skill Progress Sheets, and information on Skill Progress Sheets will yield scores for Adaptive Behavior Summary Sheets.

How To Fill Out The Subskill Worksheet

The Subskill Worksheet is used to record the day-to-day, in-the-classroom progress of low-functioning children. It is designed to be flexible, so you can easily keep track of all information which you feel is relevant for the individual child and for the particular subskill which you are teaching.

Before you begin to work on any Subskill Worksheet, however, you must choose the skill to be taught from the Skill Progress Sheets (Figure A). Assess the child's behavior for the skill to be taught and record the results in the assessment column.

You will find a list of the subskills to be assessed immediately to the left of the Assessment Column (Area 1 of figure A). At least one box in the Assessment Square must be shaded in prior to instruction on a subskill, thereby giving you initial information on the child's performance and an entry point for instruction. Based on this information, fill out a Subskill Worksheet for the subskill(s) you are planning to teach (Area 2 of figure A).

Each Worksheet is used to record a student's progress for one month. Occasionally, you may find it appropriate to combine several related subskills for recording purposes. In these instances you may use one Worksheet and note in the upper righthand corner that you have combined the subskills (figure E).

Figure A

SKILL PROGRESS SHEET / FINGER FEEDING

STUDENT Judy Jones — Eating Skills - E3 — DATE (YEAR) 1976

SUBSKILLS — INSTRUCTION

SUBSKILLS	ASSESSMENT	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	ASSESSMENT
a. Picks up food (1)												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance												
No response/inappropriate response												
b. Raises food to mouth (doesn't eat food).												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance												
No response/inappropriate response												
c. Places food in mouth												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance												
No response/inappropriate response												
d. Takes hand away from mouth												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance												
No response/inappropriate response												

SUBSKILL WORKSHEET # E3a — DATE (Month) Oct (Year) 1976

STUDENT Judy Jones — ADAPTIVE BEHAVIOR AREA Eating

(2) SKILL Finger Feeding

SUBSKILL Picks up food

(3) Setting, Materials, Procedure, Conditions	(4) Date	(5) RATINGS: No response/ Inappropriate Response	With Physical Assistance	With Imitation or Gestural Prompt	With Verbal Prompt	Without Assistance	(7) NOTES: Quality of performance, Time to complete task, etc.
Sandwich cut into bite size pieces - present 1 piece at a time	10/1	II	++++	II			
	10/4		++++	III	II		
	10/5		++++ II	II	I		
	10/6						absent
	10/7		++++	III	II		
Present 2 pieces at a time	10/8		III	IIII	II	I	
	10/11						vacation day
	10/12	III	IIII	III			
	10/13	I	III	IIII	II		finished sandwich in 20 min.
	10/14		II	IIII	III	I	

The various conditions which effect the student's acquisition of the subskill should be written in the column of the Worksheet labeled Setting, Materials, Procedures, and Conditions (Area 3 of figure A). These notations might include such information as "cup half-filled with orange juice," or "reward-social praise." When you begin teaching the subskill, record this information in the column, adjacent to the starting date of your instruction (Area 4 of figure A). As instruction progresses, you may feel that the setting, materials, etc. which you have selected have become inappropriate. To change them, put a double line under the inappropriate information and write the new information next to the current date (Area 5 of figure A).

In this way you will be able to look back at your records and see the nature of the changes you have made in instruction and when you made them.

In addition to listing the conditions effecting the acquisition of subskills in the Setting, Materials, Procedures, and Conditions column, you may also choose to note the criterion you have set for performance here. The criterion might read "eight out of ten trials without assistance" or "for at least five minutes". The user of the system should try to establish a rational level of performance for the individual child to attain. Automatically establishing a set criterion, however, can become a meaningless exercise. If there is no basis for expecting a certain level of competency, don't state one. You can use your own observation and judgment based upon the importance and difficulty of the task, and the nature of the child to determine when a skill has been mastered.

The columns labeled RATINGS (Area 6 of figure A) should be used to record the child's daily performance. There are five columns for rating a child's response. The rating columns should correspond to those written under the subskills on the Skill Progress Sheets. Worksheets with labeled and unlabeled rating columns are included in this system.

If there is not a worksheet with ratings to match the ratings of the subskill (on Skill Progress Sheet) you are teaching, fill in the ratings on a worksheet with blank rating columns. Each time you instruct a child to perform a subskill, record the results of the trial in the appropriate Rating column. If the child does not respond, place the mark in the "No Response/Inappropriate Response" column. If he or she does respond, but with some type of assistance, place a mark in one of the three middle columns. If the child performs the behavior without assistance, spontaneously or with an environmental cue, place a mark in the Without Assistance column.

The Notes column on the right-hand side of the Worksheet (Area 7 of figure A) is for any notes you may want to make about the child's training. For certain behaviors, you may want to keep track of the time the child requires to complete a task. You may want to note how much food a child eats during a mealtime or how much he or she spills. You can also use this column for noting when a child is sick, absent, or when changes are made.

How To Fill Out The Skill Progress Sheets

There is one or more Skill Progress Sheets for each adaptive behavior measured by the System. The skill, stated in terms such as "Finger Feeding" or "Drinking from a Cup," represents an activity which is made up of component behaviors or subskills. On the left-hand side of the Skill Progress Sheet are the subskills into which the skill has been broken down (Figure B). Adjacent to each subskill are a series of monthly rating blanks which correspond to the rating blanks on your Subskill Worksheets.

The Skill Progress Sheets contain two types of columns. The first and last columns are used to record your beginning-of-year and end-of-year assessments. Since, in the beginning of the school year, you assessed each child in every area, at least one box in the beginning-of-year Assessment Column should be shaded in for each subskill (Area 1 of figure B). The middle columns are used to record the results of instruction on a month-to-month basis.

To fill out the Instruction Columns on the Skill Progress Sheets, you must refer to your Subskill Worksheets. For each Subskill Worksheet, look at the **last five Instruction days** of the month and determine which of the five ratings has the most marks (Area 2 of figure B). You can do this by adding the number of marks in each of the five rating columns for the last five days. But you will probably be able to see at a glance which column has the most marks for the five-day period. After determining which rating has the most marks on the Subskill Worksheet, refer to that subskill on the Skill Progress Sheet. Now shade in the Instruction Column up to the corresponding rating level. For example, if the greatest number of marks on the Subskill Worksheet is in the "With imitation or gestural prompt" rating column, you should shade in three boxes on the

Figure B

SUBSKILL WORKSHEET # E3a DATE (Month) Oct (Year) 1976

STUDENT Judy Jones

ADAPTIVE BEHAVIOR AREA Eating

SKILL Finger Feeding

SUBSKILL Picks up food

Setting, Materials, Procedures, Conditions	Date	RATINGS: No response/ Inappropriate Response	With Physical Assistance	With Imitation or Gestural Prompt	With Verbal Prompt	Without Assistance	NOTES: Quality of performance, Time to complete task, etc.
Sandwich cut into bite size pieces - present 1 piece at a time	10/1	II	++++	II			
	10/4		++++	III	II		
	10/5		++++ II	II	I		
	10/6						absent
	10/7		++++	III	II		
	10/15		++++	III	II		
	10/18		III	++++	II		
	10/19	I	IIII	III	II		finished sandwich in 20 min.
	10/20		I	++++ I	III		
	10/21		II	++++	III		
	10/22		++++	++++			
	10/25		III	++++	II		
	10/26		III	IIII	III		
	10/27		I	++++ I	II		
	10/28		III	++++ II	I		
	10/29			++++	II		

SKILL PROGRESS SHEET / FINGER FEEDING

Eating Skills - E3

STUDENT Judy Jones

DATE (YEAR) 1976

SUBSKILLS

INSTRUCTION

SUBSKILLS	ASSESSMENT	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	ASSESSMENT
a. Picks up food												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance												
No response/ inappropriate response												
b. Raises food to mouth (doesn't crush food).												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance												
No response/ inappropriate response												
c. Places food in mouth												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance												
No response/ inappropriate response												
d. Takes hand away from mouth												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance												
No response/ inappropriate response												

Skill Progress Sheet, as shown in the illustration (Area 3 of figure B).

The highest possible rating a child can receive on a subskill is represented by five shaded-in boxes. The lowest rating is represented by one shaded-in box. If you do not teach a given subskill during the month, you will not have a Subskill Worksheet for that subskill. Therefore, you should not shade in any boxes in the Instruction Column for that month. In other words, information should appear only for those subskills and only for those months in which instruction is given.

Finally, to make the Skill Progress Sheet an effective evaluation tool which indicates the child's progress over the entire instructional year, each child must have an end-of-year assessment rating for every subskill. This assessment should be recorded in the end-of-year Assessment Column on the right-hand side of your Skill Progress Sheet (Area 4 of figure B).

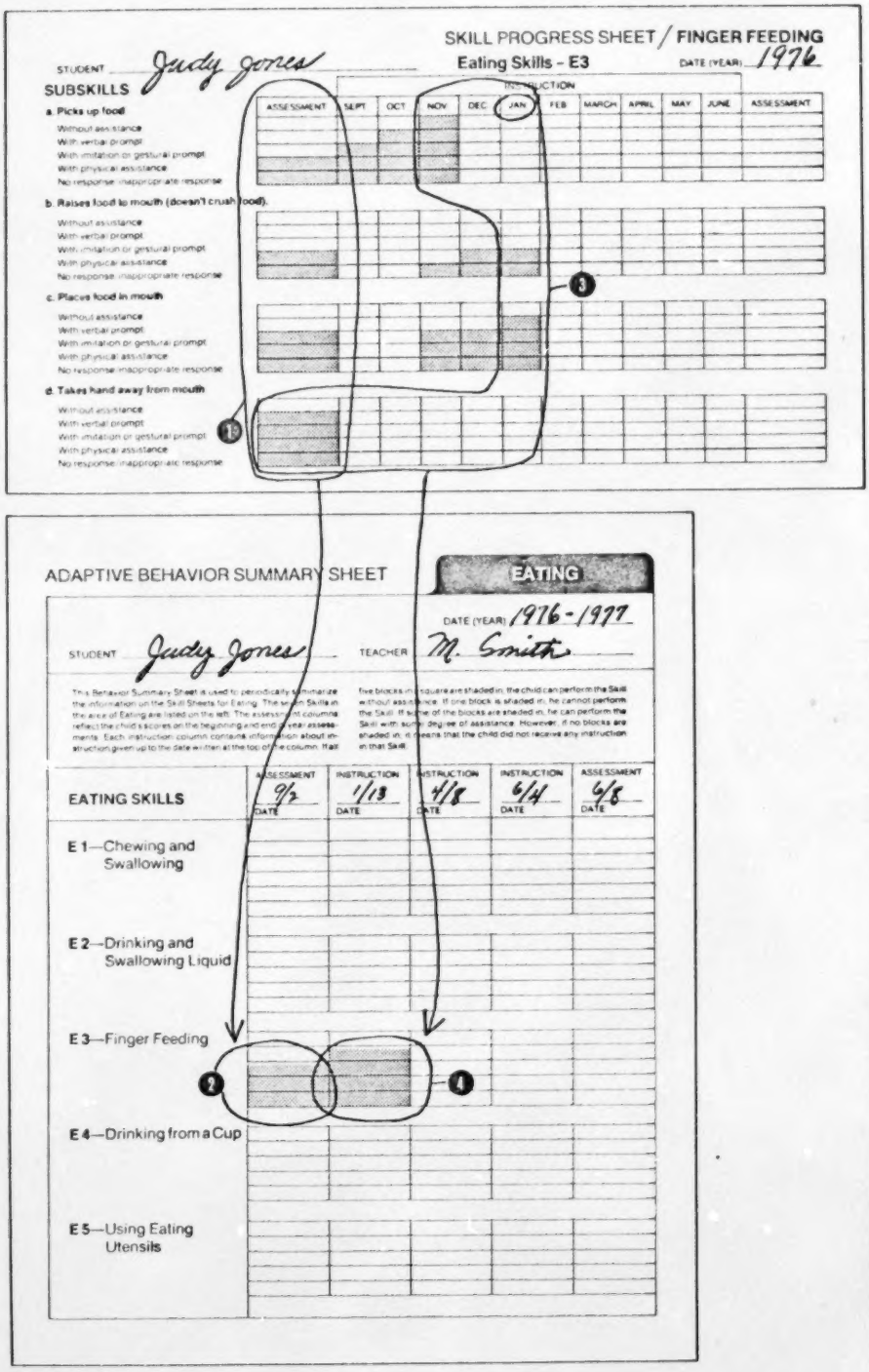
How To Fill Out The Adaptive Behavior Summary Sheets

Periodically —perhaps quarterly, at the end of the semester, or before a parent conference— you will want to summarize the information on the Skill Progress Sheets. All the adaptive behaviors in the System are grouped into nine main categories such as Eating, Toileting, Communication, etc. For each of these areas there is an Adaptive Behavior Summary Sheet. The skills which the adaptive behaviors have been broken down into are listed on the left-hand side of the Summary Sheet.

Like the Skill Progress Sheets, the Adaptive Behavior Summary Sheets have two types of columns: Assessment Columns and Instruction Columns.

The first and last columns are for assessment ratings. They summarize the information contained in the beginning-of-year and end-of-year assessments on a Skill Progress Sheet. To transfer information from the Assessment Column of specific Skill Progress Sheet(s) to an Adaptive Behavior Summary Sheet, count the number of shaded-in boxes next to each subskill on the Skill Progress Sheets(s) (Area 1 of figure C). Divide this number by the total number of subskills on the Skill Progress Sheets(s) in question to determine the child's "summary score".

Next, find this skill on the Adaptive Behavior Summary Sheet. Record the summary score by shading in the corresponding number of boxes in the Assessment Column, beginning with the bottom box and working upward (Area 2 of figure C). Most of the time you will have a fractional summary score, so you will have to estimate the correct number of boxes. For example, if the summary score is 2¾, fill in the bottom two boxes and three-quarters of the third box.



The middle columns on the Adaptive Behavior Summary Sheets are Instruction Columns, and are used to summarize information from the monthly Instruction Columns of the Skill Progress Sheets. Since there are three columns, you have three opportunities to summarize each child's performance during the year. When you decide it is time to summarize, enter the date of your summary in the space provided at the top of each column. In addition, circle the last completed month of instruction on the Skill Progress Sheet. Circling the month will be a visual reminder of when you last summarized information.

After indicating the date of your current summary, check the Skill Progress Sheets to determine the most recent information for the skills you have taught (Area 3 of figure C). You may find the most recent rating information appears in different monthly columns. You may have terminated instruction in different subskills at different times, or you may have chosen not to teach a particular subskill at all. For example, you may be currently teaching subskills "b" and "c" of Finger Feeding ("Raises food to mouth," and "Puts food in mouth"); you may have stopped teaching subskill "a" ("Picks up food") two months ago; and you may never have taught subskill "d" ("Takes hand away from mouth"). If you have not taught a subskill, you will have to use the assessment rating since it is the most recent information available.

Now that you have identified your most recent rating on the Skill Progress Sheets, you can tabulate a summary score to transfer to the Adaptive Behavior Summary Sheet. Total the number of shaded-in boxes for all the subskills on the Skill Progress Sheets. Remember, if you have not taught a subskill since your initial assessment, you will have to use that assessment score. Having tallied the number of shaded-in boxes on the Skill Progress Sheets, divide that number by the total number of subskills on the sheets to obtain a summary score.

Enter this summary score on the Adaptive Behavior Summary Sheet by shading in the appropriate number of boxes in the Instruction Column, beginning with the bottom box, and working upward (Area 4 of figure C). Repeat this procedure for all the Skill Progress Sheets used in the adaptive behavior area.

Remember, you should only summarize information for skills you have been teaching during that summary period. If you have taught even **one** of the subskills in a skill since the last summary, assume that you have been teaching the skill and use that skill information. If you have taught **none** of the subskills of a skill in that period, you will have no current information to summarize, and therefore you will show no information for that skill.

With your instruction information accurately recorded on the Adaptive Behavior Summary Sheet, you will have a comprehensive charting of a child's progress, in an entire behavior area, over an extended period of time.

HOW DOES THE SYSTEM ACTUALLY WORK IN THE CLASSROOM?

Now that you have been formally introduced to the recording procedures used in the TRAC System, you may find it helpful to see an example of the System at work. While the section on recording procedures attempts to present an orderly routine for you to follow, we recognize that each classroom can produce a multitude of situations which are far from routine. This example is designed to explore some of these situations and to show you how the System can be adapted to the variations you inevitably encounter in day-to-day teaching experiences.

As a part of the beginning of the school year assessment, a student named Judy was tested on the four subskills which comprise the skill Finger Feeding in the adaptive behavior Eating. The beginning-of-year Assessment Column of the Skill Progress Sheet shows her subskills ratings to be:

a. Picks up food —with physical assistance

b. Raises food to mouth —with physical assistance

c. Puts food in mouth —with physical assistance

d. Takes hand away from mouth —with imitation or gestural prompt

The teacher then summarized the results of the assessments by filling in the Assessment Column on the Adaptive Behavior Summary Sheet (Figure D). The teacher did this by adding the number of boxes shaded in on the Skill Progress Sheet Assessment Column. For the skill Finger Feeding, the teacher counted nine boxes, and then divided by four (the number of subskills in the skill) to get a Summary Score of 2¼. This score was indicated by shading in 2¼ boxes in the Assessment Column of the Adaptive Behavior Summary Sheet adjacent to the listing, "E3 —Finger Feeding".

Figure D

SKILL PROGRESS SHEET / FINGER FEEDING

STUDENT Judy Jones — Eating Skills - E3 — DATE (YEAR) 1976

INSTRUCTION

SUBSKILLS	ASSESSMENT	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	ASSESSMENT
a. Picks up food												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance	■					■	■	■				■
No response; inappropriate response												
b. Raises food to mouth (doesn't crush food).												
Without assistance												
With verbal prompt												
With imitation or gestural prompt												
With physical assistance	■											■
No response; inappropriate response												
c. Places food in mouth												
Without assistance												
With verbal prompt		■	■		■							■
With imitation or gestural prompt	■	■			■							■
With physical assistance	■				■							■
No response; inappropriate response												
d. Takes hand away from mouth												
Without assistance												
With verbal prompt	■	■	■									■
With imitation or gestural prompt	■	■	■									■
With physical assistance	■	■	■									■
No response; inappropriate response												

ADAPTIVE BEHAVIOR SUMMARY SHEET — EATING

DATE (YEAR) 1976-1977

STUDENT Judy Jones — TEACHER M. Smith

The Behavior Summary Sheet is used to periodically summarize the information on the Skill Sheets for Eating. The seven Skills in the area of Eating are listed on the left. The assessment columns reflect the child's scores on the beginning and end of year assessments. Each instruction column contains information about instruction given up to the date written at the top of the column. If all five blocks in a square are shaded in, the child can perform the Skill without assistance. If one block is shaded in, he cannot perform the Skill. If some of the blocks are shaded in, he can perform the Skill with some degree of assistance. However, if no blocks are shaded in, it means that the child did not receive any instruction on that Skill.

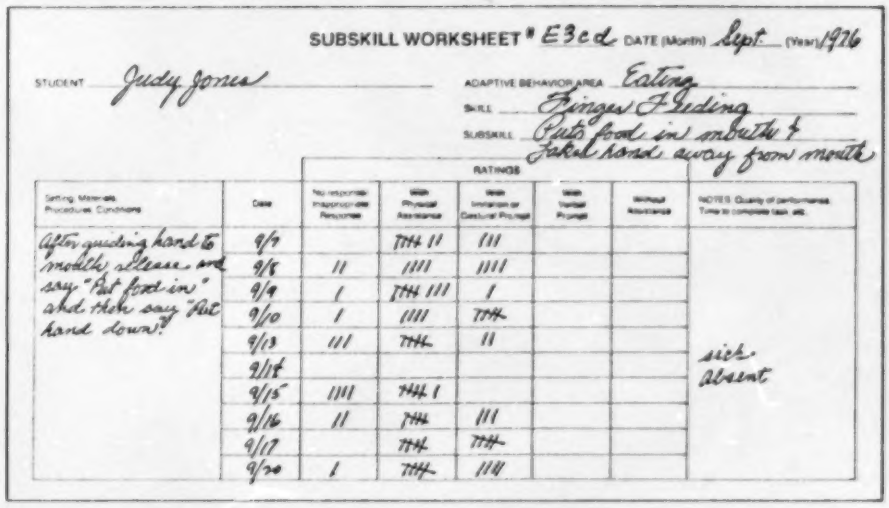
EATING SKILLS	ASSESSMENT 9/5 DATE	INSTRUCTION 1/13 DATE	INSTRUCTION 4/8 DATE	INSTRUCTION 6/4 DATE	ASSESSMENT 6/8 DATE
E1—Chewing and Swallowing					
E2—Drinking and Swallowing Liquid					
E3—Finger Feeding	■	■	■		■
E4—Drinking from a Cup					
E5—Using Eating Utensils					

Based upon this assessment, the teacher decided to work with Judy on the subskills "c. Puts food in mouth" and "d. Takes hand away from mouth." The teacher filled out one Subskill Worksheet for the two subskills, because the teacher planned to teach them as one activity (figure E). The Subskill Worksheet was filled in with the Worksheet Number **(E3cd)**, the Name **(Judy)**, the Subskills **(Puts food in mouth** and **Takes hand away from mouth)**, the Skill **(Finger Feeding)**, and the Adaptive Behavior **(Eating)**.

The teacher described the materials and procedures to be used. It was noted that the teacher would assist Judy in picking up a small piece of food and in guiding Judy's hand to her mouth. The teacher would then release her hand and say "Put food in," and "Put hand down."

During the first few days, Judy's performance on the subskill was about the same as it had been on her assessment: she required physical assistance most of the time. On September 13th, Judy was sick and on the 14th she was absent. The teacher did not record any scores for the 14th and noted the sickness and absence in the Notes Column. During the rest of the month, Judy's performance improved to the point where she was putting food in her mouth and returning her hand with only a gestural prompt most of the time.

At the end of the month, the teacher transferred the Subskill Worksheet information to the area of the Skill Progress Sheet designated "Finger Feeding." To do this, the teacher looked at the ratings for the last five days of instruction as noted on the Subskill Worksheet for September. During those five days, the highest number of marks were in the column labelled "With imitation or gestural prompt." The teacher then shaded in three boxes up to the "With imitation or gestural prompt" level for both of the subskills (c and d) which had been taught as one unit. For the remaining subskill (a and b) the teacher shaded in **no** boxes, because there was no instruction during September on those subskills.



SUBSKILL WORKSHEET # E3cd DATE (Month) Sept. (Year) 1976

STUDENT Judy Jones

ADAPTIVE BEHAVIOR AREA Eating

SKILL Finger Feeding

SUBSKILL Puts food in mouth & Takes hand away from mouth

Setting, Materials, Procedures, Conditions	Date	RATINGS: No response / inappropriate response	With Physical Assistance	With Imitation or Gestural Prompt	With Verbal Prompt	Without Assistance	NOTES: Quality of performance, Time to complete task, etc.
After guiding hand to mouth, release and say "Put food in" and then say "Put hand down"	9/7		𝍸 II	III			
	9/8	II	IIII	IIII			
	9/9	I	𝍸 III	I			
	9/10	I	IIII	𝍸			
	9/13	III	𝍸	II			
	9/14						sick
	9/15	IIII	𝍸 I				absent
	9/16	II	𝍸	III			
	9/17		𝍸	𝍸			
	9/20	I	𝍸	III			

Setting, Materials, Procedures, Conditions	Date	RATINGS: No response / inappropriate response	With Physical Assistance	With Imitation or Gestural Prompt	With Verbal Prompt	Without Assistance	NOTES: Quality of performance, Time to complete task, etc.
	9/21	I	IIII	𝍸			
	9/22	II	III	IIII	I		Returns hand without assistance most of time.
	9/23		III	𝍸 I	I		
	9/24	I	IIII	IIII	I		
	9/27		III	𝍸	II		
	9/28	I	III	𝍸 I			
	9/29		III	𝍸	II		

During September, the teacher noted on the Worksheet that Judy occasionally took her hand away from her mouth without assistance. So, at the beginning of October, the teacher filled out a separate Worksheet for the subskill "d. Takes hand away from mouth" (figure F). After only five days of monitoring Judy's performance on the behavior, the teacher saw that Judy could take her hand away from her mouth without assistance. The teacher noted this information on the recording sheet and decided to stop instruction in that subskill.

Also during October, the teacher continued to work on subskill "c. Puts food in mouth." Judy's performance level went down in November, but was up to the "With verbal prompt" level by the end of December. The teacher transferred this information from the Subskill Worksheet to the Skill Progress Sheet at the end of each month.

Early in January, the teacher decided to summarize the information on the Skill Progress Sheets by filling out the Adaptive Behavior Summary Sheets. It was the end of the semester, and the teacher wanted to chart Judy's progress in the various skill areas (Figure D).

The teacher summarized the Skill Progress Sheet for "Finger Feeding" in the following manner: First, the teacher circled the most recent month for which there was complete information which was December. Then the teacher added all the shaded-in boxes using the most recently recorded information:

2 boxes from the Assessment Column of "a. Picks up food."

2 boxes from the Assessment Column of "b. Raises food to mouth."

4 boxes from the December Instruction column of "c. Puts food in mouth."

and 5 boxes from the October Instruction Column of "d. Takes hand away from mouth."

The total was 13. The teacher then divided this by four (the number of subskills on the Finger Feeding Skill Progress Sheet) to get a summary score of 3¼. The teacher shaded in 3¼ boxes in

SUBSKILL WORKSHEET # E3d **DATE (Month)** Oct. **(Year)** 1976

STUDENT Judy Jones

ADAPTIVE BEHAVIOR AREA Eating

SKILL Finger Feeding

SUBSKILL Takes hand away from mouth

Setting, Materials, Procedures, Conditions	Date	RATINGS: No response/ Inappropriate Response	With Physical Assistance	With Imitation or Gestural Prompt	With Verbal Prompt	Without Assistance	NOTES: Quality of performance, Time to complete task, etc.
after food is in mouth "Put hand down."	10/1				III	卌 II	
	10/4				I	卌 IIII	
	10/5					卌 卌	
	10/6				I	卌 IIII	
	10/7				I	卌 IIII	OK

the January Instruction Column of the Skill Area Summary Sheet for Eating next to Finger Feeding (figure D).

In January, the teacher stopped instruction in "c. Puts food in mouth" because Judy had reached a fairly high level of proficiency. But since Judy still needed physical assistance to pick up the food, the teacher decided to begin instruction on that subskill. During February and March, Judy's performance level on "a. Picks up food" went down.

In the middle of April, Judy's parents asked to come in for a conference. They wanted current information on Judy's progress, so the teacher summarized the information on the Skill Progress Sheets up to March, the most recent month for which there was complete information. The teacher marked the date of summary on the Adaptive Behavior Summary Sheet and circled March on the Skill Progress Sheets.

During March, the teacher had worked only on subskill "a. Picks up food." The teacher counted the one box for that subskill in the March column and added it to the most recent information for all the other Finger Feedng subskills:

2 boxes in the Assessment Column of "b. Raises food to mouth."

4 boxes in the December Instruction Column for "c. Puts food in mouth."

5 boxes in the October Instruction Column for "d. Takes hand away from mouth."

The total was 12 boxes. Dividing by four gave the teacher the summary score of 3. The teacher shaded in three boxes in the April column of the Adaptive Behavior Summary Sheet for Finger Feeding.

During April, May, and June the teacher did not work with Judy on any of the subskills for "Finger Feeding". Therefore, no information was shaded in on the Skill Progress Sheet for those three months. When the teacher prepared the fourth instruction summary in June, no boxes for the skill Finger Feeding on the Adaptive Behavior summary Sheet for Eating were shaded in.

At the end of the school year, the teacher made a final assessment of Judy's performance in all the different adaptive behavior areas, and recorded these ratings on the Skill Progress Sheets. To summarize the final assessment information for "Finger Feeding," the teacher added the shaded-in boxes in the end-of-year Assessment Column. The total was 14. The teacher then divided this total by four to get a summary score of 3½, and shaded in 3½ boxes in the final Assessment Column of the Adaptive Behavior Summary Sheet.

The teacher could then see that in the skill "Finger Feeding", Judy had made considerable progress since the beginning-of-year assessment, and had achieved a fairly high level of proficiency in this skill. Effective application of the TRAC System supplied Judy's teacher with important information, and gave the teacher a way to provide valid data to many other people concerned with Judy's development.

HOW DOES THE SYSTEM REPORT PROGRESS TO PARENTS?

One of the most exciting aspects of the TRAC System is its ability to provide teachers with a specific way to communicate information to parents of multiply handicapped or retarded children. TRAC's charting of a child's progress quickly informs parents about the problems and progress of their child.

Because low-functioning children learn very slowly, it is often difficult to detect progress. This is especially frustrating for parents. Parents need, and are entitled to know not just that their child has been involved in finger feeding, but what exactly he or she is doing, and what progress has been made.

Knowing the rate of their child's progress and his or her level of performance, will provide parents with important information and may serve as an excellent motivator in involving the parent in the child's training.

While the recording sheets and their results do not constitute a curriculum, they can provide an entry point for development of home training procedures. Using TRAC as a guide, the teacher can help parents train and reinforce specific behaviors.

As the child's performance progresses toward a stated goal, parents may become active and effective participants in helping their child to achieve his or her fullest potential. Their participation will reinforce the child's training activities in school, and provide the parental involvement so vital to the successful interaction between parent, child, and teacher.

APPENDIX I: POSSIBLE MISUSES AND LIMITATIONS OF THE SYSTEM

As would any measurement system devised for a certain set of circumstances, this monitoring system has a number of precautions attached to it. First, this system is not designed for diagnostic purposes. A formal diagnosis in any area should only be undertaken with the type of test that considers repeated samplings of the same behavior. The Balthazar Adaptive Behavior Scales is an example of such a test. No detailed diagnostic appraisal of a child's condition can be made with the TRAC Monitoring System. For this purpose, an independent instrument would be more appropriate.

Second, an appraisal of the child's initial status must be undertaken prior to beginning any instruction. To omit assessment would be to misuse the System, since any criterion referenced measurement (CRM) based system implies assessment prior to instruction as a fundamental concept. This assessment, for instructional purposes, should involve all the skill areas in the TRAC System. The assessment can be carried out by combining several outside instruments dealing with adaptive behavior or basic living skills, assuming these instruments have been coded into the TRAC System. It should be noted, however, that the TRAC System itself could be used to formulate this initial instructional assessment, if necessary.

Third, one must be careful to avoid the inference that similar codings of progress in different areas of the TRAC System imply similar degrees of skill difficulty.

APPENDIX II: TECHNICAL DEVELOPMENT OF THE TRAC MONITORING SYSTEM

The TRAC Monitoring System is the result of several years of product evaluation in real-life settings. Since 1972 when the first classes for the severely/profoundly retarded were begun, the Intermediate Unit staff has been trying out different schemes of reporting student progress in the area of adaptive behavior skills. The technical development of the TRAC Monitoring System focused upon two topics besides the actual in-classroom tryouts continuously going on: review of previous measurement efforts, and past measurement pitfalls.

Preview of Previous Measurement Efforts:

For skills that are appropriate to low-functioning children such as the profoundly and severely retarded, a number of measurement devices have evolved over the years (see the list of references at the end of this manual for these instruments). For our purposes we need only acknowledge those earlier efforts that formed a partial developmental basis for our current efforts. Ultimately, however, because virtually all these earlier efforts were aimed at assessment (a static description of behavior) rather than monitoring (a dynamic view of a child's progress), we have derived most of our ideas from our early day-to-day instructional experience rather than from past developments in measurement per se. The overall CRM orientation to the System grew out of the earlier Montgomery County Intermediate Unit efforts in this area (see Proger & Mann, 1973).

It must be remembered that the TRAC Monitoring System was devised for monitoring across time rather than assessing at a given point in time. It will frequently be the case that a user of the TRAC System will also want to employ other assessment devices, such as the American Association for Mental Deficiency adaptive behavior scales. If such is the case, then the user should do a task analysis of the items of the instrument in terms of the existing structure of the TRAC Monitoring System. The results of that outside test, if the user so desires, can be coded into the Assessment columns of the TRAC sheets.

In a similar fashion, a task analysis of a curriculum being used in a classroom can, with even less difficulty than a test, be coded into the TRAC Monitoring System. Actually, here, in the case of curricula, the coding is nothing more than assigning the various activities and objectives to the appropriate major area, such as communication. The task analysis here is not as specific as would be the detailed item analysis of a test.

Past Measurement Pitfalls

In reviewing past measurement efforts and in examining our own early failures and areas of difficulty, we have identified several problem areas that the present TRAC Monitoring System has tried to avoid: (a) forcing an arbitrary developmental hierarchy upon users where none exists or can be verified to be most effective; (b) writing tasks at various levels of specificity so that nonparallelism of data results; (c) embodying highly specific, unrealistically lengthy and verbose statements of objectives; (d) allowing all types of units of measurement (percent correct, number correct, number of trials, rate of response, etc.) so that one finds oneself in an apples-and-oranges interpretative dilemna; (e) trying to place too much information on one recording form so that precision and specificity are lost; (f) confusing the checklist approach of static assessment with the dynamic nature of monitoring; (g) resorting to norms rather than the more appropriate, descriptive, CRM levels of mastery; and (h) assigning points in a partial-credit manner for the various specific components of a given subskill.

REFERENCES

Balthazar, E.E. *Balthazar Scales of Adaptive Behavior for the Profoundly and Severely Mentally Retarded: Section 1; Part one: Handbook for the professional supervisor.* Champaign, Ill.: Research Press, 1971.

Balthazar, E.E. *Balthazar Scales of Adaptive Behavior for the Profoundly and Severely Mentally Retarded: Section 1; Part two: Handbook for the rater technician.* Champaign, Ill.: Research Press, 1971.

Balthazar, E.E. *Balthazar Scales of Adaptive Behavior for the Profoundly and Severely Mentally Retarded: Section 1; Part three: Program scoring form.* Champaign, Ill.: Research Press, 1971.

Balthazar, E.E. *Balthazar Scales of Adaptive Behavior for the Profoundly and Severely Mentally Retarded: Section 1; Part four: Workshop and training manual.* Champaign, Ill.: Research Press, 1971.

Balthazar, E.E., & Stevens, H.A. Scalar techniques for program evaluation with the severely mentally retarded. *Mental Retardation,* 1969, *7* (3), 25-48, 43.

Banham, K.M. *A Social Competence Inventory for Adults.* Durham, N.C.: Family Life Publications, 1968.

Buckley, S.M., Burger, R.M., & Hikade, M.L. *Training for independence* (Vol. 2). Los Angeles, Calif.: Western Psychological Services, in press.

Buckley, S.M., Burger, R.M., & Hikade, M.L. *Training for independence* (Vol. 3). Los Angeles, Calif.: Western Psychological Services, in press.

Burdock, E.I., & Hardesty, A.S. Children's behavior diagnostic inventory. *Annals of the New York Academy of Science,* 1963, *105,* 890-896.

Burger, R.M., & Buckley, S.M. *Training for independence* (Vol. 4). Los Angeles, Calif.: Western Psychological Services, in press.

Cain, L.F., Levine, S., & Elzey, F.F. *Cain-Levine Social Competency Scale.* Palo Alto, Calif.: Consulting Psychologists Press, 1963.

Clausen, J. Quo vadis, AAMD? *Journal of Special Education,* 1972, *6,* 51-60.

DiNola, A.J., Kaminsky, B.P., & Sternfield, A.E. *T.M.R. Performance Profile for the Severely and Moderately Retarded* (3rd Ed.). Ridgefield, N.J.: Reporting Service for Children, 1967.

Doll, E.A. *Vineland Social Maturity Scale.* Circle Pines, Minn.: American Guidance Service, 1965.

Ferguson, J.T., McReynolds, P., & Ballachey, E.L. *Hospital Adjustment Scale.* Palo Alto, Calif.: Consulting Psychologists Press, 1953.

Gunzburg, H.C. *Progress Assessment Chart of Social Development.* Birmingham, Eng.: SEFA (Publications), 1969.

Heber, R. A manual on terminology and classification in mental retardation. *American Journal of Mental Deficiency,* Monograph Supplement (2nd ed.) 1961.

Leland, H. Mental retardation and adaptive behavior. *Journal of Special Education,* 1972, *6,* 71-80.

Leland, H., Shellhaas, M., Nihira, K., & Foster, R. Adaptive Behavior: A new dimension in the classification of the mentally retarded. *Mental Retardation Abstracts,* 1967, *4,* 359-387.

Nihira, K., Foster, R., Shallhaas, M., & Leland, H. *Adaptive behavior scales.* Washington, D.C.: American Association on Mental Deficiency, 1970.

Proger, B.B., & Mann, L. Criterion-referenced measurement: The world of the gray versus the black and white. *Journal of Learning Disabilities,* 1973, *6,* 72-84.

Proger, B.B. Test review No. 12: Balthazar Scales of Adaptive Behavior; Section 1. *Journal of Special Education,* 1973, *7,* 95-101.

Wilcox, P.H. The Gardner behavior chart. *American Journal of Psychiatry,* 1942, *98,* 874-880.

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